

PEDIATRICS

UNDER THE CHARGE OF

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The Condition of the Reflexes in Poliomyelitis.—REGAN (*Am. Jour. Dis. Children*, November, 1917, xiv, No. 5) states that in poliomyelitis the most common symptom is an alteration in the reflexes accompanying or following a short febrile period. The patellar reflex is the most commonly affected, owing to the frequent involvement of that region of the spinal cord which innervates the quadriceps extensor group of muscles. It was altered in 81 per cent. of 818 cases. Hyperactivity of the knee-jerks is usually, if not invariably, the first change to occur in the preparalytic stages. It may be so marked that the slightest tap with the percussion hammer will elicit a response which will cause the foot to move through the arc of a circle of from 30 to 60 degrees. The reflex, as a rule, becomes diminished and finally absent as paralysis supervenes, but it may persist exaggerated in cases in which the paralytic involvement is slight and in which the lower extremities are not concerned to any marked extent, as well as in cases that are of the spastic variety. It may also be met with when the paralysis is limited to the upper half of the body. In rare cases there may be encountered an absence of knee-jerks on the paralyzed side and an exaggeration on the opposite and healthy side. Hyperactivity of the patellar reflex is most frequent in the meningitic and ataxic cases and in the combined type of the disease in which the meningitic symptoms were prominent. Absent or normal response is the rule in purely bulbar cases except in the very early stages. An exaggerated reflex is sometimes seen in atrophied or obviously paralyzed leg. Not infrequently the knee-jerks are found hyperactive in convalescence when every other symptom of the disease has disappeared, no doubt indicative of the stage of improvement, and just preceding the return to normal. A diminished patellar reflex usually precedes its disappearance with the advent of paralysis. It may, however, persist during the entire course of the acute stage in cases with slight paralysis, especially of the meningitic and ataxic types. During the stage of improvement it is, as a rule, the first change noticed. A sluggish patellar reflex is rather unusual except in the meningeal forms of the disease. Very rarely sluggish but hyperactive reflexes are encountered. Absence of the knee-jerks is the most common alteration, and it is most frequently encountered in the myelitic and bulbar types of the malady. This symptom may be the only demonstrable objective sign of the disease. The patellar reflex may remain normal throughout the entire paralytic phase of the disease, especially in bulbar and ataxic cases. It is also common in myelitic cases when the paralysis is limited to the upper extremities and trunk. It is scarcely ever encountered when the hydrocephalus is at all marked. The plantar reflexes are exaggerated in the preparalytic stage. The hyperactivity is of a peculiar type and is accom-

panied by a response which comprises not only a movement of the foot but also of the entire leg. The reflex was altered in only 41 per cent. of 643 cases during the paralytic stage. An exaggerated response may persist into the paralytic stage, more especially in the meningitic and ataxic classes of cases. A diminished reaction was found most common in the ataxic, the myelitic, and the myelitic meningitic forms of the disease. The reflex was absent most frequently in the purely bulbar and in the bulbar myelitic types. A normal reaction was encountered most often in the ataxic, bulbar myelitic, and bulbar meningitic forms of the malady. Often the first sign of improvement in cases with the marked paralytic involvement is the gradual reappearance of the reflex. There is to be noted two types of response to the movements employed in testing for Kernig's sign, the true reaction and the other, the "pseudo-reaction" or false reaction. The true reaction is only occasionally met with, and is limited to those forms of the disease in which the meningitic symptoms are extremely prominent. The pseudo-reaction is common in all cases exhibiting a moderate or severe degree of polyneuritis, and is associated with the voluntary resistance to the extension of the leg on the thigh, owing to the pain thereby produced. It is a sign analogous to Lasigne's sign in sciatica. The Babinski phenomenon is relatively rare in poliomyelitis, but it occasionally occurs in the meningitic form of the disease. Its presence in a case in which the diagnosis was doubtful would always be decidedly in favor of tuberculosis, and, to a less extent, cerebrospinal meningitis. A true ankle-clonus is likewise very rare in contradistinction to other forms of meningitis. The reaction may be simulated in cases in which the polyneuritis is marked, owing to the severe pain caused by the movements employed. The pupillary reflex is but little altered. It may be slightly sluggish in cases with marked hydrocephalus and during the very early stage; but a reaction is almost always present except in the moribund stage. When paralysis is limited to one leg only the knee-jerks on the healthy side are more often present than absent. When the upper extremities are alone involved the patellar reflexes are more often present than absent. In a small percentage of cases of facial nerve paralysis the knee-jerks may be lost.

Infantile Scurvy: A Study of its Pathogenesis.—HESS (*Am. Jour. Dis. Children*, November, 1917, xiv, No. 5) says one of the several factors in the pathogenesis of infantile scurvy is faulty diet. In his studies pasteurized milk was found to be a contributing cause if it was not fresh; that is, if given twenty-four to forty-eight hours after pasteurization. From this point of view milk pasteurized in the city was preferable to that pasteurized at the creamery, which reaches the consumer much longer after the heating process. Aging seemed to play a greater role in the production of scurvy than heating, whether the milk was pasteurized or raised to the boiling-point. It was found that even raw milk on aging lost its antiscorbutic properties. Infantile scurvy is not a simple dietary disease. The diet is at fault in allowing the intestinal bacteria to elaborate toxins. The toxin is not always the same, and perhaps it would be better not to regard this condition as a clinical entity. Scurvy is an intestinal intoxication or auto-intoxication, due to the overgrowth of harmful bacteria in the intestines.

It is the product of an unbalanced flora which is no longer controlled by the proper dietary. Oliguria is a common symptom. The mild therapeutic effect of citric acid may be attributed to its diuretic properties. Orange-juice was found to bring about marked diuresis. One of the striking and important symptoms of scurvy is a susceptibility to infection, such as furunculosis, nasal diphtheria, "grippe," etc. Some hemorrhages are due to this secondary infection, and are to be regarded not as scorbutic but rather as focal complications. Other hemorrhages are truly scorbutic. Scurvy is essentially a disorder characterized by malnutrition and not by hemorrhages, taking months to develop, and from a clinical point of view frequently latent or sub-acute. Scurvy occurring in epidemics is described. This results when latent scurvy exists among a number of infants, and is associated with an infectious disease such as "grippe."

The Significance of Certain Dental Stigmata of Congenital Syphilis.

—WALL (*Arch. Pediat.*, October, 1917, xxxiv, No. 10) states that stigmata of inherited syphilis is evidenced by abnormalities of the permanent teeth. The virus of syphilis affecting the fetus or infant in the early months of life finds a habitat sufficiently pliable to afford a fertile field for destructive tissue change and for an equally deleterious inhibitory effect upon the tender formative structure within the alveolar processes. If the luetic poison has been in the ascendancy during certain stages of the development of the permanent teeth, especially that of dentification, the child will in later years show certain changes, such as were first brought to light by Hutchinson. This lesion of the central incisors bears his name. Other teeth as well show the stigmata of inherited syphilis, and there are other teeth which show characteristic lesions. The first permanent molar or sixth year molar presents typical deviation from the normal if the patient shows dental stigmata at all. The three dental lesions seen are Hutchinson's teeth, cuspal erosion of the first permanent molar, and dystrophies of the permanent teeth. The sixth year molar is the only permanent tooth to dentify during intra-uterine life. This occurs about the fifth to sixth month. The changes in this tooth are characteristic. There is an erosion of the grinding surface. It is irregular in form. The surface of the tooth is pitted, excavated and discolored. Often a pulpy mass of a dirty yellow color occupies most of the surface of the crown. It is sometimes called "the honey-combed molar of hereditary syphilis."

The Relation of the Reaction of the Urine to the Diet in Infants and Children.—TORRES (*Am. Jour. Dis. Children*, November, 1917, xiv, No. 5). In changing the reaction of the urine in children the difficulties are diminished when a suitable diet is prescribed. By diminishing the amount of protein to 2 grams and sometimes to 3 grams per kilo the urine will often be rendered alkaline without using a drug. In cases in which the protein reaches the lowest physiological limit without rendering the urine alkaline the acidity may be diminished by adding vegetables to the diet. In older children in whom the food is more varied, much can be done by regulating the diet. The urine of carnivora is acid and that of herbivora is alkaline. The acidity in the carnivorous animals depends on the products of protein

metabolism. In cases in which vegetables are used to turn the urine alkaline, vegetables must be used in which the amount of protein is smaller in proportion to the salts, like fruits, rice, wheat and the like, rather than those in which a large amount of protein is present, such as peas, beans and the like. Vegetables which contain purins like coffee, tea and cocoa may increase the acidity, because they may produce uric acid. In cases of infection, especially of the urinary tract, and in cases of starvation, the urine tends to become more acid than in other conditions; therefore it is more difficult to render it alkaline. When drugs are used without the proper diet, the dose necessary to make the urine alkaline is much larger than is usual. The action of the drugs is very fleeting, and should be watched and given in larger and more frequent doses as necessary.

OBSTETRICS

UNDER THE CHARGE OF

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The Lower Uterine Segment.—In a discussion before the Royal Academy of Medicine in Ireland, TWEEDY (*Jour. Obst. and Gynec. Brit. Emp.*, June–August, 1915) stated that there is now sufficient data to clear up the mystery of the anatomy of this part of the womb and the endoperitoneal tissue is the true boundary between the cervix and body, and constitutes the tendinous extremities of the uterine fibers. Until this tissue has been made inert by rupture or by opening of the internal os, no direct pressure can be brought to bear on the cervix. In fact, dilatation of the internal os is an early phenomenon in pregnancy which permits the ovum to pass through and press directly on the cervix. A continuous pressure causes a rapid hypertrophy in the cervix which does not stretch but grows.

Intestinal Hemorrhage in the Newborn.—CRAWFORD (*Jour. Obst. and Gynec. Brit. Emp.*, June–August, 1915) describes 2 cases of intestinal hemorrhage in female infants, the bleeding appearing thirty-six and fifty-two hours after birth. The labors had been normal. In the first case horse serum was given subcutaneously in three doses of 2 c.c., and with each a small dose of adrenalin. This infant died on the fifth day and a duodenal ulcer was found very near the pylorus. The second case was treated by antidiphtheric serum, two doses of 5 c.c. each, followed by recovery. Breast-feeding was resumed without difficulty on the fifth day. The only symptom in both cases was free hemorrhage from the rectum and vomiting was absent. In discussion a case was described of an infant three days old that died three hours after having nose-bleeding.